

IN THE CLAIMS:

Please amend the claims as shown immediately below with all changes (e.g., additions, deletions, modifications) included, pursuant to 37 C.F.R. 1.121(c)(1).

Complete listing of the claims:

1-27. (Cancelled).

28. (Previously Presented) A method of processing transaction routing tasks, the method including:

receiving a plurality of transaction requests at an automatic call distribution system;

generating a respective transaction event responsive to receiving each of the transaction requests, the transaction event for routing the transaction request to an agent of the automatic call distribution system;

responsive to the respective transaction events, identifying a respective workflow associated with each transaction event;

creating a respective task object for each of the transaction events and identified workflows;

queuing the task objects in a task object queue;

distributing a task object of the task objects, which at least partially executes the workflow, from the task object queue to an available thread within a pool of threads operating within a multiprocessor system based upon a relative priority of

the task objects;  
identifying a processor affinity attributed to the distributed task object of the transaction routing task; and  
assigning the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.

29. (Previously Presented) The method of claim 28, wherein the transaction routing tasks includes anyone from a group of transaction routing tasks including receipt of a telephone call, receipt of a hang up, a request to store data, a request to retrieve data, a request to generate a user interface for the agent.

30. (Currently Amended) The method of claim 29, wherein ~~the telephone call includes each workflow has an associated priority that overrides the task priority at least one of a telephone call received via a public switched telephone network and a voice over IP call received via the Internet.~~

31. (Currently Amended) The method of claim 28, wherein ~~the agent includes at least one of a human agent and a software agent~~ a stack of the original task and subsequent sub-tasks is maintained for each task object when a sub-task is executed.

32. (Previously Presented) The method of claim 28, wherein the transaction routing task has a

real-time priority and is distributed in accordance with the real-time priority to the available thread within the pool of threads.

33. (Previously Presented) The method of claim 28, including assigning the available thread to a processor within the multiprocessor system according to a thread priority.

34. (Previously Presented) The method of claim 33, including assigning the thread priority to the available thread based on a priority of the transaction routing task distributed to the available thread.

35. (Previously Presented) The method of claim 28, further including determining a best match between the transaction routing task and the available thread.

36. (Previously Presented) The method of claim 28, wherein the available thread is a member of a class of threads that are included in the pool of threads, the class of threads being associated with the priority.

37. (Currently Amended) A system for processing transaction routing tasks, the system including:

an automatic call distribution system to receive a plurality of transaction requests;

an event subsystem to generate a respective transaction event responsive to receiving each of the plurality of transaction requests, the transaction event for routing the transaction request to an agent of the automatic call distribution system;

a dispatcher to identify a respective workflow associated with each of the transaction events and that creates a respective task object for each of the plurality of transaction events and workflows;

a task object queue that contains the respective task objects of the plurality of transaction requests;

a scheduler that selects a task object from the task object queue where the selected task object at least partially executes the workflow associated with the transaction event, the scheduler to select the transaction routing task from a task queue based upon ~~the relative~~ a relative priority of the selected task object; and

a thread within a pool of threads operating within a multiprocessor system to execute the selected task object of the transaction routing task, the dispatcher to identify a processor affinity attributed to the transaction routing task, and to assign the thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.

38. (Currently Amended) The system of claim 37, wherein the dispatcher is to generate the transaction routing task that at least partially executes the workflow and wherein the processor affinity is determined by an affinity mask in the form of a bit vector representing the processors

on which the respective thread is allowed to run.

39. (Previously Presented) The system of claim 38, wherein the transaction routing task is dispatched by the dispatcher to the task queue, and wherein the thread within the pool of threads receives the transaction routing task from the task queue.

40. (Previously Presented) The system of claim 39, wherein the scheduler is to issue the transaction routing task from the task queue to the thread within the pool of threads.

41. (Previously Presented) The system of claim 40, wherein the scheduler is to issue the transaction routing task from the task queue to the thread within the pool of threads based on the priority associated with the transaction routing task.

42. (Previously Presented) The system of claim 41, wherein the scheduler is to issue the transaction routing task from the task queue according to a real-time priority assigned to the transaction routing task.

43. (Previously Presented) The system of claim 37, wherein the scheduler is to assign the thread to a processor within the multiprocessor system according to a thread priority.

44. (Previously Presented) The system of claim 43, wherein the scheduler is to assign the thread priority to the thread based on a priority of the transaction routing task distributed to the

thread.

45. (Previously Presented) The system of claim 37, wherein the scheduler is to determine a best match between the transaction routing task and the available thread.

46. (Previously Presented) The system of claim 37, wherein the available thread is a member of a class of threads that are included in the pool of threads, the class of threads being associated with the priority.

47. (Previously Presented) A system for processing transaction routing tasks, the system including:

a first means to receive a plurality of transaction requests;

a second means to generate a respective transaction event responsive to receiving each of the transaction requests, the transaction events for routing the transaction requests to agents of the first means;

a third means to identify a workflow associated with each of the transaction events;

a task dispatcher that creates a task object for each of the transaction events;

a task queue that contains the task objects of the plurality of transaction events;

a fourth means to select a task object of the plurality of task objects where the selected task object at least partially executes the workflow associated with the transaction event and where selection is based upon a relative priority of the plurality of task objects; and

a fifth means within a pool of threads operating within a multiprocessor system to execute the selected task object, the third means to identify a processor affinity attributed to the transaction routing task, and to assign the thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the first means.

48. (Previously Presented) A tangible machine readable medium storing a set of instructions that, when executed by a machine, cause the machine to:
- receive a plurality of transaction requests at a automatic call distribution system;
  - generate a respective transaction event responsive to receiving each of the plurality of transaction requests, the transaction events to route the transaction requests to agents of the automatic call distribution system;
  - responsive to the transaction events, identify a respective workflow associated with each of the plurality of transaction events;
  - responsive to the identification of the workflows, creating a task object for each of the transaction requests;
  - select and distribute a task object of the plurality of task objects, which at least partially executes the workflow, from a task queue to an available thread within a pool of threads operating within a multiprocessor system based upon a relative priority of the task objects;
  - identify a processor affinity attributed to the selected task object of the transaction

routing task; and

assign the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the transaction routing task to route the transaction request to the agent of the automatic call distribution system.

49. (Cancelled) A method of processing a plurality of transaction routing tasks in a multiprocessor transaction processing system having a plurality of processors, such method comprising:

receiving a plurality of transaction requests;  
creating a respective task object from each of the transaction events;  
queuing the task objects in a task queue;  
determining a relative priority among the task objects; and  
assigning the task object with a highest relative priority of the plurality of task objects to a first available worker thread within one of the plurality of processors.